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ABSTRACT

This paper reviews ten years of evaluation efforts by the sponsors of Follow Through programs, maintaining that sponsors' evaluations provide a different, equally valuable perspective to the one provided by the national evaluations of Follow Through. Sponsors were persons or groups that developed educational models for Follow Through and enacted them in one or more school districts. Methods of sponsor evaluation which are highlighted include comparisons of Follow Through children with control groups in non-Follow Through schools, with "advanced control groups" in Follow Through schools (these consisted of older children who had attended the target classrooms prior to implementation of Follow Through in those classrooms), and with the standardization samples of nationally normed tests. New evaluative instruments focusing on classroom environment, parents, and school personnel developed by various sponsors are also discussed. The findings of sponsor evaluations are cited to document the program's impact on children, parents, teachers and schools. These findings sometimes support but frequently contradict the conclusions reached in the national evaluations. It is suggested that a review of all available data, from both national and sponsor evaluations, is necessary before drawing conclusions about the worth of the Follow Through experience. (Author/CM)

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Ten Years of Evaluation Efforts:

The Work of Follow Through Sponsors

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Abstract

The national evaluations of Follow Through are now available. These evaluation reports provide one perspective on the outcomes of the Follow Through study. Another perspective can be obtained by examining the evaluation efforts of the Sponsors and local communities involved in the study. It is found that these smaller scale studies sometimes support but frequently contradict the conclusions reached in the national evaluations. The present authors suggest that careful review of all the available data is necessary before drawing conclusions about the worth of the Follow Through Experience.

Ten Years of Evaluation Efforts:
The Work of Follow Through Sponsors

Follow Through is an outgrowth of Head Start. It began in 1967 and was designed to "follow through" on the preschool programs of Head Start into the Kindergartens and primary grades of school. Follow Through is a comprehensive program molded in the same cast as Head Start. Its objectives include the provision of educational, medical, dental, and social services.

Follow Through Sponsors were persons, or groups, who were asked to develop, translate, and then enact their unique educational models in one or more school districts. The national plan of evaluation chosen after the Follow Through program was underway was Planned Variation. This was an effort to determine from among a number of educational alternatives those different approaches which would work best in serving a variety of children.

At its peak in the early 1970s, Follow Through consisted of 22 Sponsors, 173 local education agencies, 50 state education agencies, 84,000 children, more than 4,000 teachers and teaching assistants, hundreds of school principals, and thousands of parents.

Sponsors were drawn from ten universities, three colleges, four corporations, three educational research and development laboratories, one foundation, and one

state department of education (See appendix 1 for a listing of these Sponsors). The project has been in existence for 10 years as of the Spring of 1978. It represents the largest, the longest, and probably the most studied educational intervention conducted under the auspices of the Federal government. The program has produced much in spite of many difficult problems in purpose, operation, and evaluation.

The national evaluations of Follow Through have received considerable attention recently. The most frequently mentioned of these evaluations are known as the Abt reports. These reports are so named because they were produced by Abt Associates, Inc., of Cambridge, Massachusetts, the external contractor charged with analysis and interpretation of the data collected on the Follow Through program by Stanford Research Institute.

The Abt reports have been criticized by House, Glass, McLean and Walker (1977) as well as Kennedy (1977). The most telling criticism is that the groups of children with whom the Follow Through children have been compared are not equivalent in initial level of performance, or on socioeconomic level and that the covariance analyses that have been used to statistically equate the groups are not sufficient to the task. We bring up these criticisms to make an important point: When conducting an evaluation of a large scale educational effort in a field setting

with methodological problems, evaluators should make use of all available data sources. A large body of data pertaining to Follow Through has received little attention to date by the educational community. One part of this corpus of data consists of the evaluations conducted by the Follow Through Sponsors and local sites.

Reference to the Sponsors' evaluations poses a dilemma. In evaluating a program, whose data are more important--the external evaluators' or the program implementors'? Most people immediately respond--the external evaluator, of course. We suggest that in the face of very complex design and selection problems in a quasi-experimental setting, both have a legitimate role to play in the evaluation process and that one without the other can lead to neglect of important program features. We suggest that educational evaluators should function as ethnographers rather than strict experimentalists. This approach requires the collection of data from a variety of sources and the constructive grappling with any contradictions posed by these findings. The Sponsors found considerably more evidence for the effectiveness of their programs than did the external evaluators. This is not surprising, but it must be dealt with openly rather than ignored. It is the purpose of this paper to highlight these evaluation efforts of the Sponsors.

The present review of the Sponsor initiated evaluation efforts is preliminary. The most current available sources are the draft chapters prepared by each of the Sponsors for inclusion as one volume of the Final Report on Follow Through soon to be issued by the U. S. Office of Education. Nineteen of these chapters were available to us for review (these are indicated in Appendix 1 with an *). These are referred to in this paper by listing the model name, O. E., draft (e.g., Role Trade, O. E., draft). These chapters reveal only the tip of the iceberg. They were limited to 20 typewritten pages by the U. S. Office of Education and approximately 50% of each chapter was devoted to a discussion of the evaluation of the particular educational approach. The other 50% was used to describe the approach.

A second source was available to us. Seven Follow Through Sponsors have prepared drafts for a book on Follow Through to be published by Academic Press (these are indicated in Appendix 1 with an @). These are referred to in this paper by listing the model name, book, draft (e.g., Bank Street, book, draft). These chapters do much to supplement the information concerning Sponsor evaluation efforts.

In addition, we had access to a limited number of technical reports, reprints, and articles pertaining to the various Follow Through models.

The purposes of Sponsor evaluations have been both formative and summative. In the early years of Follow Through, the Sponsors' role in the area of evaluation was underfunded and limited by Federal policy to formative evaluation. When Garry McDaniels became head of the evaluation for Follow Through, he began to make provisions for Sponsor evaluations on a slightly broader scale. Despite these provisions, Sponsor evaluation efforts have never been accorded high status or priority. The wonder is that so much evaluation activity took place at that level.

The Methodology of Sponsor Evaluation

The most common design utilized by Sponsors in their evaluation efforts was the control group design using students, families, or schools not in the Follow Through program as control groups. The use of this paradigm is typified in the Role-Trade Model (O. E., draft): "The investigator is aware of the specific variables for which it is not possible to control and recognizes the sources of difficulty regarding suitable control groups, sources of invalidity, and possibly equivocal results. But the need for an evaluation which can point out the possible effects of the Role-Trade model seem to greatly outweigh the pitfalls which strict experimentalists would eye with suspicion." This particular Sponsor identified a school

as control group. This school was chosen to be similar to FT in sociodemographics and geography by the San Diego Unified School District. One factor which greatly facilitated this design was that the FT model was being implemented in only one school thus facilitating the efforts of the Sponsor to locate a reasonable control group.

A second type of control group design utilized by Sponsors (ex., Parent Supported Model) was termed the "advanced control group" design. This approach established as control groups the children who attended the first, second, or third grade classrooms the year prior to the implementation of Follow Through in those classrooms. This design resulted in greater homogeneity of students and controlled for teacher and school variables.

Some Sponsors realized very early in their efforts that the FT groups were so different from the NFT groups that these comparisons must be very guarded and tentative. The term "control group" was quickly replaced by "comparison group".

To partially compensate for these difficulties, Sponsors became frequent users of analysis of covariance and the general linear statistical model. The Sponsors were, in fact, a motivating force to Abt Associates to search for and include relevant covariates into the analyses of the national evaluation data. They also incorporated these techniques into their own evaluation studies.

A typical approach was to analyze FT vs. NFT year-end test performance covarying on the Fall or previous Spring scores (Parent Supported Model, O. E., draft).

The Sponsors began discussing the "relative performance" of their children. For example: "From assessments of participant performance made in the cognitive area, it has been shown that project pupil improvements are for the most part not significantly superior (in statistical terms) to the performance of the comparison group. In absolute terms, however, project pupils, relative to comparisons, often demonstrate not only moderately greater gains across single school years, but also increasingly greater gains with increasing amount of exposure to the curriculum across K-3 sequences" (Bilingual/Bicultural Model, O. E., draft).

Several of the Sponsors, however, became dissatisfied with the complexity and possible methodological inadequacy of covariance analyses (Haney, 1974) and advocated a return to simpler designs and analyses. They urged the use of norm-referenced strategies similar to those recently developed by Research Management Corporation (Tallmadge, et al., 1974) for use in Title I evaluations. These analyses using either covariate adjusted or unadjusted outcomes, compared the performance of Follow Through children to the standardization sample on nationally normed tests. This argument is demonstrated by the Educational Development

Corporation (O. E., draft) report: "The California Achievement Test was administered to Follow Through children at mid year 1976-1977. According to national norms, it is expected that the average child across the country would place at the 3.5 grade level. According to federal definitions, the "disadvantaged" Follow Through children are expected to be one year behind grade level near the end of third grade; thus, if no interventions of any kind had taken place Follow Through children would be expected to score at the 2.5 grade level at the end of third grade".

The Stanford Achievement Test (SAT) and the Metropolitan Achievement Test (MAT) data were also analyzed in this fashion by Follow Through Sponsors (e.g., Nongraded Model, O. E., draft; Parent Education Model, O. E. draft). In addition to achievement tests, data generated by the Weschler Intelligence Scale for Children (WISC) were also analyzed in this fashion (Responsive Education Model, O. E., draft).

The Sponsors have argued through the use of these norm referenced strategies that success could be better determined by examining the extent to which FT children closed the gap in grade level equivalent or percentile equivalent to the norm. These analyses revealed very dramatically different conclusions than those yielded by control group--covariance analyses.

This type of evaluation design has also been suggested

by Follow Through Sponsors for the national evaluation. Lynn Weiss and Ann Branden of the Kansas Follow Through program demonstrated with data taken directly from the Abt Associates, Inc. (1977) national evaluation reports that such analyses reveal a more optimistic picture of Follow Through than do the more complicated analyses conducted by the evaluation contractors.

Figures 1 and 2 display total reading and math achievement of 4,030 Follow Through children, from 63 local school districts related to 15 different model Sponsors. Achievement is expressed in percentile ranks. The solid vertical line at the 50th percentile represents the test norm: the point at which the average of groups of middle class children typically falls. The dotted vertical line at the 20th percentile marks the average level of groups of economically poor children--about one year below their more affluent peers.

For a group of Follow Through or Title I children achievement above the 20th percentile is an educational improvement. Achievement above the 50th percentile indicates a solution to the low achievement problem.

The figures show that in reading, 62% of the local school districts show improvement and 13% actually solved the problem. In math, 70% of the districts show improvement and 10% solved the problem.

Insert Figures 1 and 2

A particularly important contribution of Sponsor evaluations has been the identification of outcome variables which reflect the uniqueness of their educational philosophies. The High/Scope Foundation, for example, developed several ways of looking at the productive language abilities of children and demonstrated that FT children exhibited greater productive language than their NFT counterparts (Cognitively Oriented Model, O. E., draft).

The Bank Street model (Bank Street, book, draft) developed an extensive instrument (BRACE) for assessing major aspects of the classroom environment. This instrument focuses on such variables as cooperation with peers, self-activation, and original thinking. These areas of development are viewed as crucially important to the Bank Street Model.

When Bank Street classes were compared to Bank Street FT classes and to non-FT classes there was a higher percentage of desired behaviors in the Bank Street, followed by the Bank Street Follow Through, and then the non-FT classrooms. In a second study comparing FT and non-FT using this instrument, seven of eleven clusters of behaviors favored the FT classrooms. These data indicated that the behavior of FT children was more closely approximating the behaviors sought by the Bank Street teachers than non-FT children.

New instruments were also developed focusing on pa-

rents as well. The Behavior Analysis Model (Schultz, 1977; book, draft) has utilized parent questionnaires as part of its Annual Consumer Evaluation. The Role-Trade Model (O. E., draft) developed a 20 page interview schedule designed to elicit opinions and attitudes from parents about Follow Through and their children's involvement in it, illustrating that parents and families are useful sources of data in determining the impact of an early education efforts.

The Far West Laboratory has also developed new ways of looking at the impact of Follow Through on school system personnel. Their Educational Forces Inventory (Responsive Education Model, O. E., draft) is a novel attempt to rate the influence in a school building of teachers, principals, and parents. A study of 600 teachers and teaching assistants revealed that these persons see themselves as strong forces along with the FT advisors.

The scope of the sponsors' evaluation efforts has been quite broad. This breadth has been in the areas of design, statistical analysis, and instrument development. There is no way to accurately gauge the impact of these evaluation efforts on the educational research community. It is extremely hard to imagine how 10 years of evaluation efforts of 22 Sponsors could not have caused such an impact.

The Findings of the Sponsor Evaluations

The findings of the Sponsor evaluations have much to say about the impact of Sponsors at their respective sites. The credibility of these findings must be weighed as carefully as those of the national evaluations. While Sponsors were closer to their sites and more aware of the characteristics of their sites, schools, and children, they were also less sophisticated in research design in some cases, and were working with samples smaller than the national population. They also had fewer resources for conducting complex research efforts.

The findings of the Sponsor evaluations reflect child outcomes, parent outcomes, and teacher and school system outcomes. We will present several example studies to highlight the results of the evaluation efforts of Follow Through Sponsors.

Child Outcomes

The outcomes reported by Sponsors indicate that Follow Through has had an impact on children. The child outcomes reflect, for the most part, the major philosophical and curriculum differences among the Sponsors. For example, the Mathemagenic Activities Program is a cognitively oriented model drawing heavily from the work of Piaget. In their reports the Sponsors indicate a significant impact on FT children's conservation abilities (Mohseni and Smock,

1974; Ebert and Smock, 1973) as well as differences in the performance of FT children on other Piagetian tasks.

Another cognitively oriented model, High/Scope, has emphasized the preparation of children to function in the broader context of American society. They rejected the emphasis of performance on Piagetian tasks and have instead directed their attention to the ability of children to use language productively. Their evaluation efforts indicate that their FT children exhibit greater productive language than their NFT counterparts. The FT children at the third grade " . . . are more fluent, use more diverse vocabularies, make more descriptive statements, have more diverse descriptive vocabularies (Descriptive Diversity), write better organized narratives (Narrative Organization), and produce written text which is more readily decoded (Decodability)." (Report of 5th Annual FT Sponsor Conference, 1975.)

The Bank Street model (book, draft) has reported that Follow Through children exceed non-Follow Through children in self-initiated communication (65% vs. 49%), expression of thoughts (34% vs. 29%), and peer communication (28% vs. 20%). These findings are the results of a study done in 1973 and were also used to validate their instrument.

The Sponsors have not limited their evaluation efforts

solely to Sponsor specific outcomes. They also report impressive achievement gains on standardized tests as a result of the Follow Through program. The Parent Supported Model (O. E., draft) utilized the California Achievement Test in its research efforts at one site. Out of 33 possible comparisons (summarizing across sub-tests, (3), years (4), and grades (3)), 11 significant differences favored Follow Through. The remaining 22 differences were null.

The Direct Instruction model (O. E., draft) reports consistent gains on the Wide Range Achievement Test as well as on the Metropolitan Achievement Test. These gains favor Follow Through children compared to both the norms reported for the standardization samples of the tests and non-Follow Through comparison children.

One of the difficulties encountered by FT Sponsors was the varying length of time children spent with the model. A second problem was the developmental nature of the Follow Through program. One model, the Interdependent Learning Model (O. E., draft), dealt with both of these problems in interesting ways. They looked at children's performance on several tests and included absence rate into the analyses documenting "that there was a close relationship between low attendance and low-level performance . . ." They further documented that FT children had far better attendance than NFT children. Lastly, they showed that

the later cohorts, when the educational model was better developed, showed stronger gains as a result of the FT experience. This type of complicated systematic research process into problems confronting Sponsors is an example of the knowledge generated by FT Sponsors.

Overall, the Sponsors' evaluations of child outcomes indicate that the Follow Through program has had an impact on children. The specific nature of this impact varies depending upon the Sponsor conducting the research. These dependent variables reflect such areas as achievement scores, intelligence scores, productive language, attendance, and others. All Sponsors argue that they have had an impact on children. Are these impacts mythical? A reasonable approach is to consider the data reported by each Sponsor as partial information to be considered in reaching a complete understanding of the impact of Follow Through. The interpretations of Sponsors' evaluations should be modified by the same kind of alternative explanations as those which can be attached to the national evaluations, e.g., halo effects, selective reporting of data, and vested interests.

Parent Outcomes

The overall finding of the Sponsors' evaluations of parent outcomes is also positive. Indirect evidence for the validity of this conclusion can be obtained by

considering the mobilization of parents which has occurred in response to threats of funding cutbacks by the Federal government. The avalanche of telegrams and letters to congressmen supporting Follow Through provides clear evidence that parents feel positively toward the program.

The Parent Supported Model (O. E., draft) is an educational approach which directly involved parents in the teaching of their children. To document the impact of the program on parents, Sponsor staff conducted a series of extensive interviews with the parents of Follow Through children. These interviews indicate that parents are aware of Follow Through, that they enjoy teaching their children, that they feel involved in the overall educational system, and that they support Follow Through's continued existence. This finding was repeated by the Responsive Education Model (Garipay, et al., 1975), and others.

The Behavior Analysis Model (Schulte, 1977) consumer surveys show that over 90% of their parents indicated that they felt satisfied or very satisfied with the teaching methods used in their Follow Through classrooms (N=1986). These surveys also indicate that over 90% of the parents believed their Follow Through children were happy in school during the 1977 school year (N=1985).

Another Sponsor (Parent Education, book draft) who

has devoted effort to the evaluation of the impact of FT on parents is the Parent Education Program of Ira Gordon. This Sponsor has documented changes in the feelings of competence of parents during their participation in the program. Evidence was also obtained to show that the teaching behavior of parents changed while they were participating in the Follow Through Program.

The parent outcome data generated by Sponsors' evaluation efforts do indicate a significant program impact on parents. These data have been discounted by the Office of Education officials who are preparing summary volumes of the Follow Through evaluations. These data are, however, a part of the overall corpus of information on the Follow Through program. As the Follow-up of compensatory education programs is now indicating (Lazar, 1977), parent outcomes may be the most meaningful and lasting effects of an early education program.

Teacher and School System Outcomes

The Follow Through Sponsors believed that they were having an impact on school systems. Hodges and Sheehan (1977) have maintained that Follow Through can appropriately be seen as a major teacher preparation program.

The Behavior Analysis Model (Schulte, 1977) reports that approximately 95% of their lead teachers, teacher aides, and parent aides, are satisfied or completely satis-

fied with the Follow Through teaching methods (N=407). Considering the structured teaching methods used by the Sponsor these satisfaction data are certainly meaningful.

The Responsive Education Model (book, draft) reports that Follow Through instructional staff are more satisfied in their classrooms than are other teachers. Specifically, they state that:

> "Teachers in Responsive Education Program Classrooms had higher morale as measured by the Purdue Teacher Opinionaire than the teachers in the national sample used to standardize the test. In particular, Responsive teachers were higher on Rapport with Principal, on Rapport among Teachers, and on Satisfaction with Curriculum Issues."

Future Developments Suggested by the Sponsor Evaluations

A review of the Sponsor evaluations indicates several trends which may be ahead for educational evaluation. The first is an increasing dependence upon the norm-referenced prediction models as an alternative to control group designs. This suggests a critical need for more research efforts exploring the validity of these prediction models. Why do the prediction models yield different findings than the control group designs? This question must be answered in the years ahead.

A second development may well be the systematic valid-

ation of many of the instruments which have been developed among the Sponsors. In the early years of Follow Through, Stanford Research Institute (SRI) indicated that they would participate in the development and refinement of Sponsor specific measures. This effort never materialized due to funding restrictions and the modifications of the national evaluation design of Follow Through. The field of educational evaluation can be well served by a systematic effort to collate the instruments developed by the Sponsors and field test and validate those particular instruments which are most in need by existing educational programs.

A third potential development is an increasing coordination of internal and external evaluation efforts. If both approaches were properly funded and tightly coordinated, much more knowledge could be generated to present a composite picture of the impact of a federally funded program.

In summary, a review of the Sponsors' evaluations indicates that they were broad in scope and contain much evidence regarding the impact of Follow Through. They have reflected and likely generated an expansion of research methodologies from the traditional control group model practiced in laboratories to an array of techniques, procedures, and analyses practiced in functioning school

programs.

At times the conclusions and interpretations of the Sponsors are at variance with the findings of the national evaluation. At other times, they support and augment the national evaluation efforts. In any event, the Sponsors' evaluations should be seriously considered and weighed when assessing the impact of the Follow Through Programs.

The 10 years of evaluation efforts has resulted in many advances and findings. These will likely have an impact on educational evaluation for some time.

This review of some of the Sponsor evaluation efforts reveals that there are many lessons to be learned from Follow Through that may well be lost. This data source is only one of those in the Follow Through project which may be overlooked. We suggest that a thorough review of all data sources is well worth the effort if we are to capitalize on the $600 million dollars that will have been spent on the Follow Through experience.

We also suggest that there is something basically wrong in the world of educational evaluation when so much effort, yielding so many ideas, can be completely overlooked in the decision making processes on the basis of narrow conceptions of evaluation.

A systematic analysis of how children are living and learning in schools is needed. This should be followed

by a theoretical analysis of what this life in school should lead to as the child matures (Zimiles, 1977). In the meantime, evaluation should be comprehensive. By that we mean that they should include conscious efforts to obtain data from those committed to the program as well as those external to the program. They should focus on all of the objectives of programs and seek to inform the public about <u>all</u> that went on in educational efforts.

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*Two major sources of references are in draft form. These are:

(1) Sponsor contributions to the O. E. Final Report on Follow Through soon to be issued by the U. S. Office of Education. These may be obtained from the Office of Education or from the Follow Through Spcnsors.

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APPENDIX I

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Behavior Analysis*@
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California Process+
California State Department of Education
Division of Compensatory Ed.
Bureau of Program Development
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Cognitively Oriented Curriculum*@
High/Scope Educational Research Foundation
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Culturally Democratic Learning Environment*
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Santa Cruz, California 95064

Cultural Linguistic Approach*
Center for Inner City Studies
Northeastern Illinois University
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Direct Instruction*@
University of Oregon
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College of Education
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EDC Open Education Follow Through*
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Parent Education*@
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Home-School Partnership*
Clark College Follow Through
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Individualized Early Learning*@
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Interdependent Learning*
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Language Development*
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Follow Through Division
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APPENDIX I

cont'd

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Role-Trade*
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La Jolla, California 92037

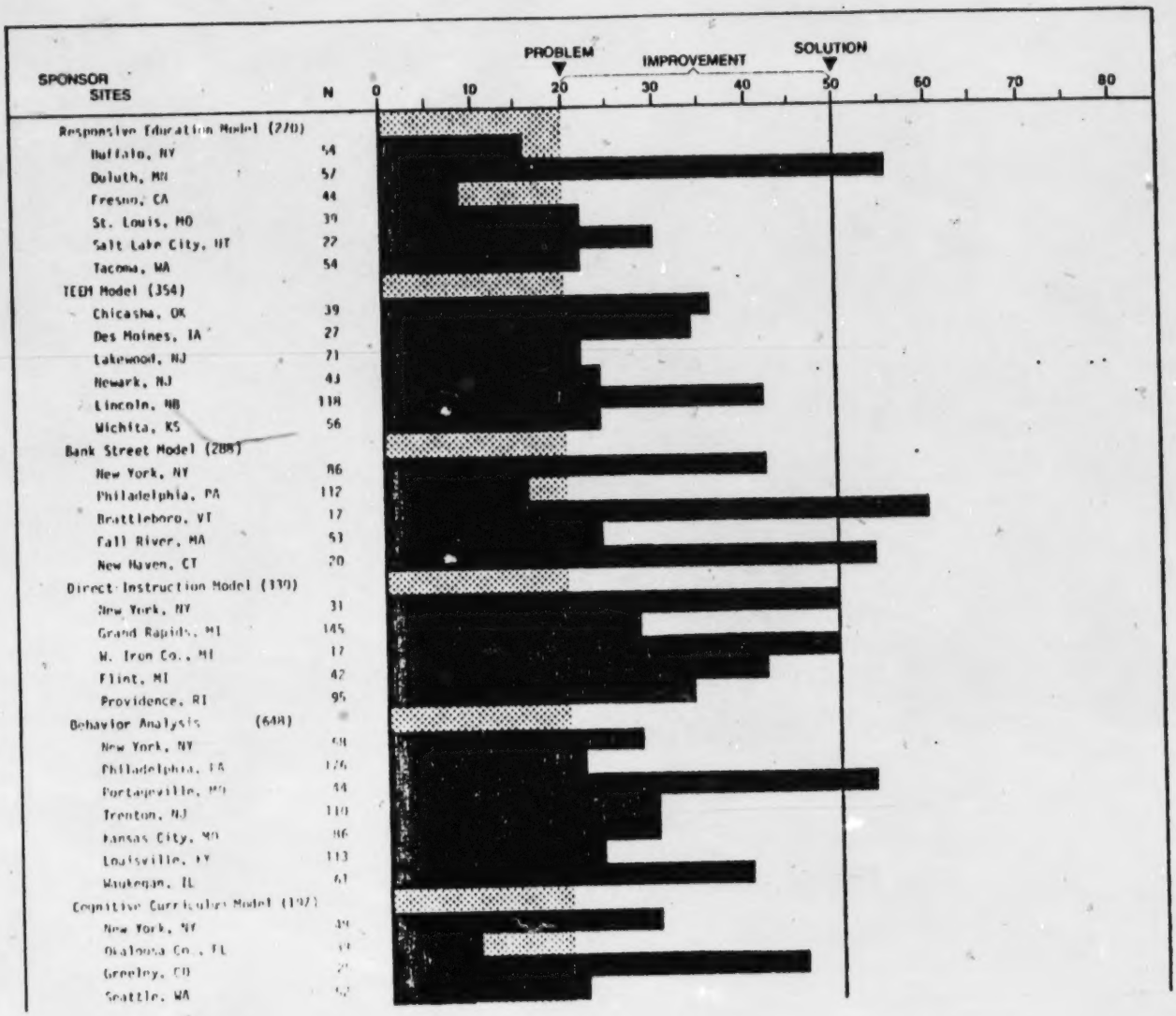
Tucson Early Education*
University of Arizona
Collect of Education
Room 439
Tucson, Arizona 85721

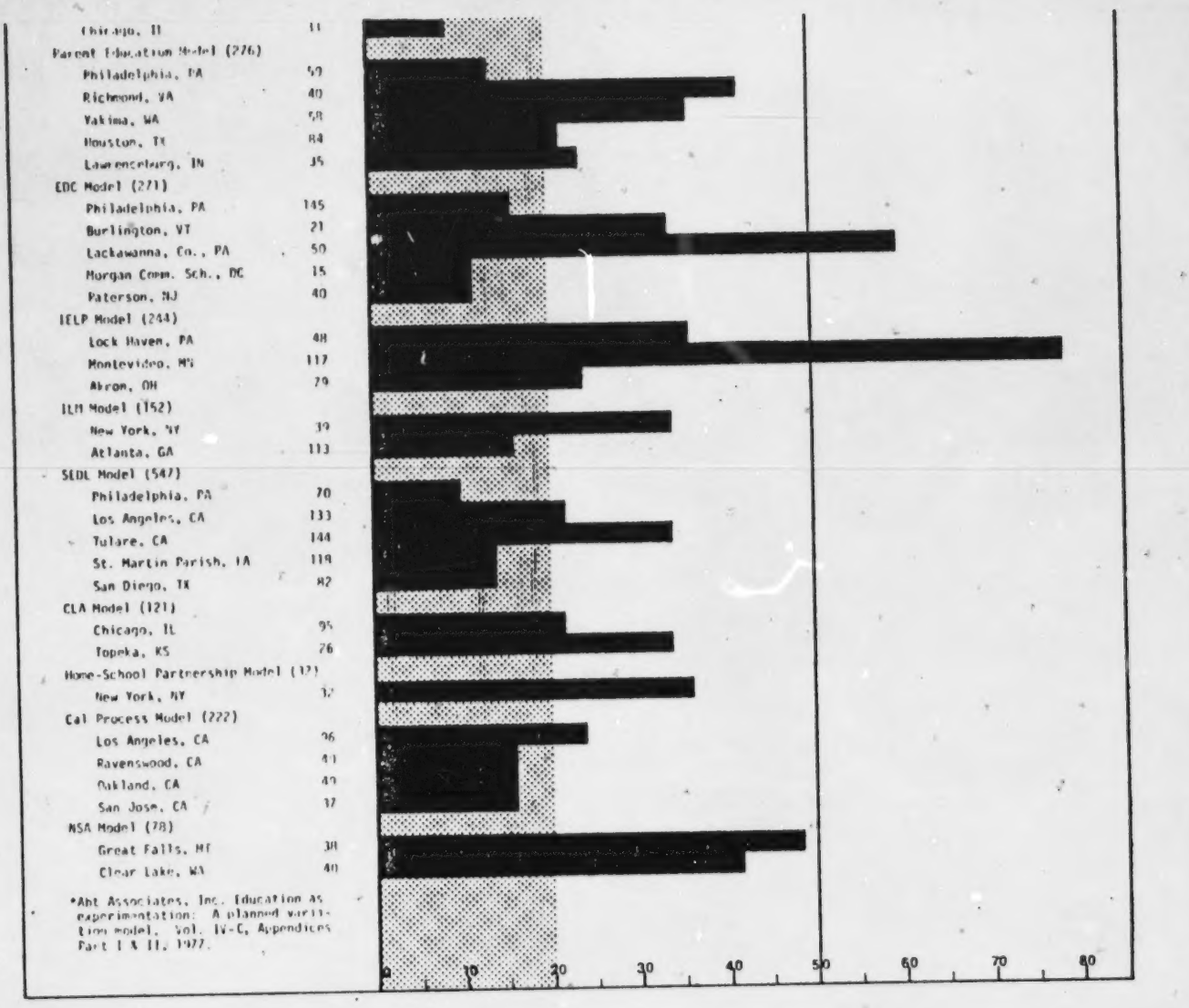
*Draft chapters for U.S.O.E. Final Report.

@Draft chapters for book to be published by Academic Press.

+Not a Follow Through Sponsor at the time.

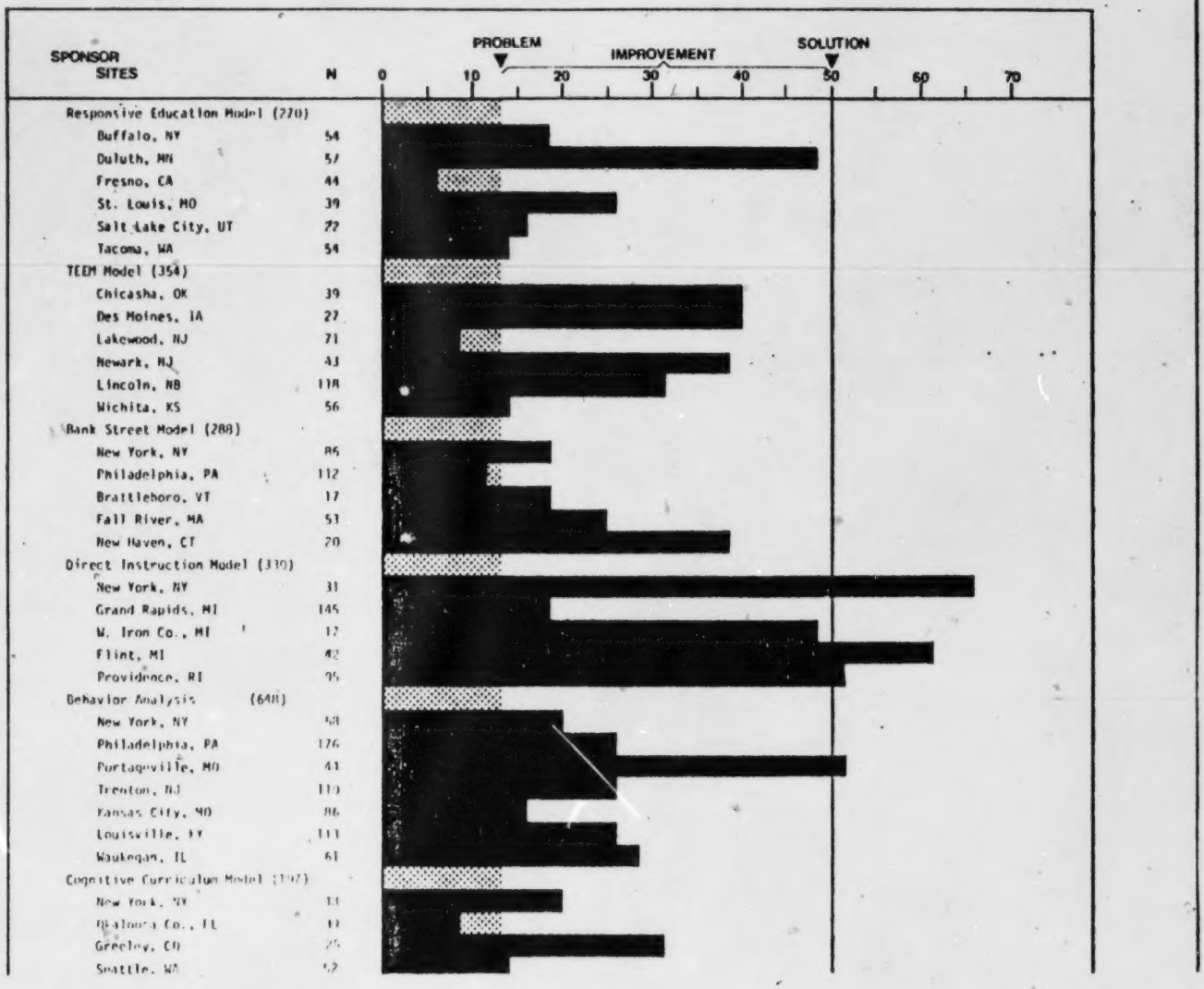
Figure 1. TOTAL READING (% iles)*

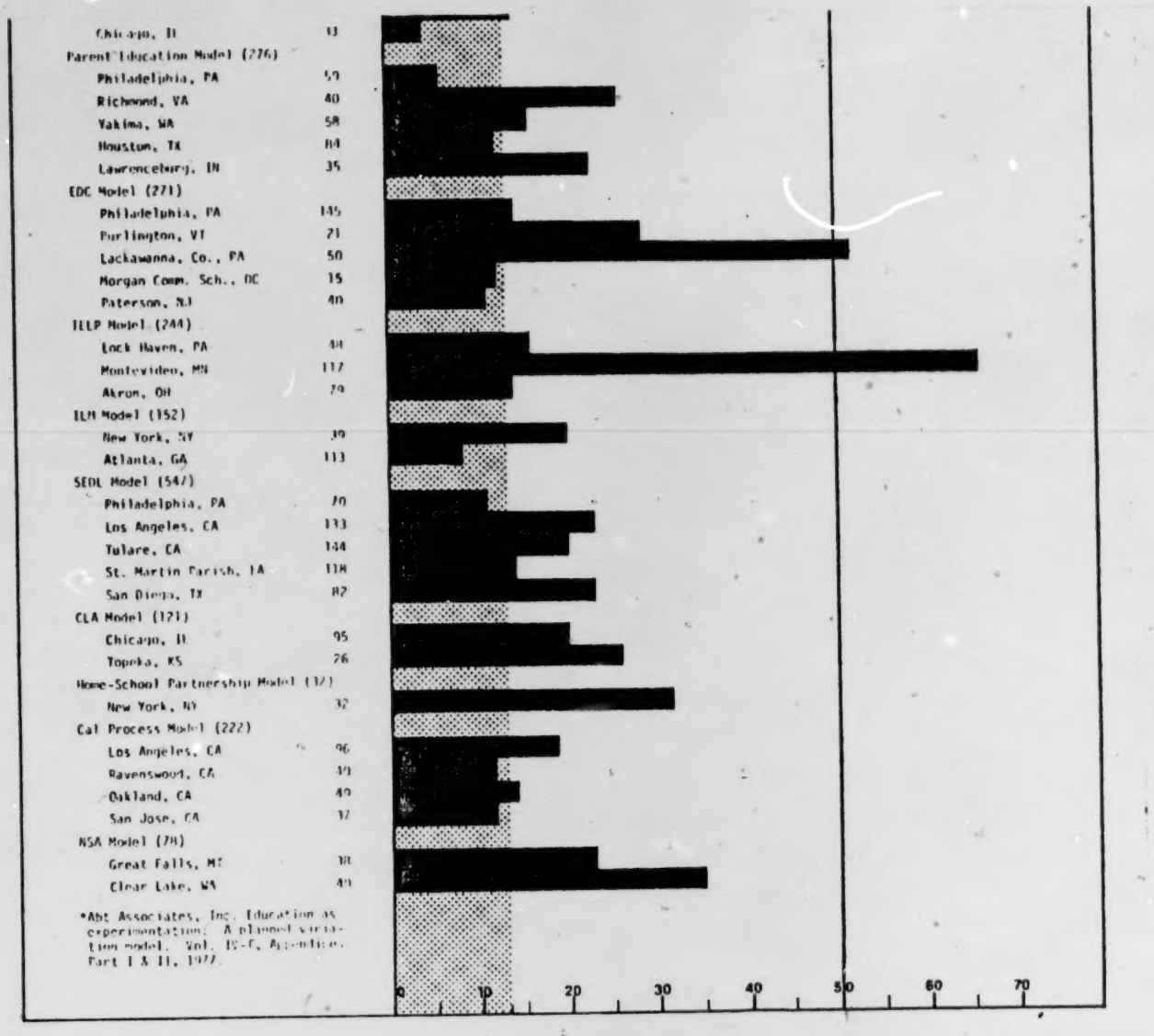




*Abt Associates, Inc. Education As experimentation: A planned variation model. Vol. IV-C, Appendices Part I & II, 1977.

Figure 2. TOTAL MATHEMATICS (%iles)*





*Abt Associates, Inc. Education as experimentation: A planned variation model. Vol. IV-C, Appendices. Part I & II, 1977.